REMARKS

This amendment responds to the office action mailed September 24, 2003. In the office action the Examiner:

- allowed claims 19 and 20;
- objected to claims 3-7, 9-12 and 15-18 as being dependent upon a rejected base claim;
- rejected claims 1 and 2 under 35 U.S.C. 102(e) as anticipated by Hildebrand (US 5,727,074);
- rejected claims 8, 13 and 14 under 35 U.S.C. 103(a) as being unpatentable over Hildebrand in view of Wood (US 6,178,514);

After entry of this amendment, the pending claims are: claims 1-20.

Claims 3, 4, 9, 10 and 15 have been rewritten in independent form, and therefore claims 3-7, 9-12 and 15-20 are believed to be in condition for allowance.

Applicants respectfully traverse the rejections and objections stated in the Office Action.

In response to Applicants' previous amendment, the Examiner suggests that claims 1, 8 and 13 fail to limit the invention specifically to a multi-band equalizer which operates in a frequency domain.

Multi-band Equalizer Limitation

Claims, 1, 8 and 13 all explicitly require a multi-band equalizer. For instance, claim 1 states:

> wherein the parametric equalizer comprises a plurality of equalizer bands, each such equalizer band having one or more filters.

Hildebrand, however, expressly teaches that it does not relate to multi-band equalizers (see column 3, lines 40-45), but to a digital filter that operates in the time domain (see column 6, lines 4-17):

> There are two varieties of equalizers: The first of multi-band equalizers. (See ....) Because this invention **does not relate to multiband equalizers**, a discussion of their characteristics is not made here.

Multi-band equalizers are based on different methodologies and techniques than the Hildebrand Digital Filter

Further, the "warping" technique disclosed in Hilderbrand, i.e., stretching the magnitude of a spectrum at low frequencies and condensing the magnitude at high frequencies, functions more like a conventional low-pass filter, which is substantially different from the multi-band equalizer of the present invention.

The multi-band equalizer of the present invention, as shown, for example, at page 7, lines 21-23 and page 8, lines 4-7, comprises a plurality of equalizer bands, covering the spectrum from low frequencies (e.g., 80 Hz) to high frequencies (e.g., 18 KHz). Each equalizer band has one or more digital filters. In one embodiment, each band includes two identical filters, one for each channel of audio data (page 6, lines 24-32 and Fig. 5). The filters are not necessarily low-pass filters either. In particular, Fig. 10 shows an improved ladder filter whose spectrum is symmetric at a center frequency F_c, which ranges from low frequencies to high frequencies.

With this amendment, claims 13, 19 and 20 are also amended to correct a typographical error. No new subject matter is added.

Respectfully, nor does Wood teach or suggest a multi-band equalizer operating in the frequency. Therefore, claims 1, 8 and 13 and their respective dependent claims 2-7, 9-12 and 14-18 should be allowable.

Determining a type of speaker is distinct from determining a filter based on a specified speaker type. Hildebrand does not AUTOMATICALLY determine a type of speaker.

Claims 1, 8, and 13 all require AUTOMATIC determination of a type of speaker of a computer. The word AUTOMATIC excludes methods where a human is responsible for telling the computer what type of speaker is attached. Not only may the human be wrong, the human may not want to be bothered, and depending on human input information is the opposite of automatic acquisition of such knowledge by a computer.

The Examiner's argument that "use of software application to develop the filter reads on automatic determination of the speaker being use" is wrong because (A) it ignores the word "AUTOMATICALLY" in claims 1, 8 and 13, and (B) it confuses determining a filter design with determining a speaker type. In Hildebrand the filter design is automatically determined, based on information specified about a speaker, but the speaker type is not

automatically determined. Therefore claims 1, 8 and 13 are neither anticipated nor suggested by Hildebrand.

Furthermore, the Examiner has neither stated nor suggested that Wood discloses automatic speaker type determination. Therefore claims 1, 8 and 13 are patentable over the prior art of record, whether considered alone or in combination.

In light of the above amendments and remarks, the Applicant respectfully requests that the Examiner reconsider this application with a view towards allowance. The Examiner is invited to call the undersigned attorney at (650) 849-7721, if a telephone call could help resolve any remaining items.

Respectfully submitted,

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Gary S. Williams (Reg. No.)
PENNIE & EDMONDS LLP
3300 Hillview Avenue
Palo Alto, California 94304
(650) 493-4935